

IN THE CLAIMS:

✓ Please cancel claims 6, 8, 24, 26, 42 and 44.

Please amend claims 1, 7, 9, 19, 25, 27, 37, and 43 as follows:

1. (Amended) An implant, comprising:
a substrate;
a structured surface formed on at least a portion of said substrate; and
a biocompatible coating deposited on at least a fraction of said structured surface;
A wherein said structured surface includes a plurality of undercuts, and said biocompatible material coats said plurality of undercuts in said structured surface; and
wherein said coating is formed by a thin film technique adapted to deposit said coating on line-of-sight hidden surfaces within said plurality of undercuts of said structured surface.

A2 7. (Amended) The implant of claim 1 wherein said thin film technique includes at least one deposition process selected from the group consisting of physical vapor deposition and chemical vapor deposition.

A3 9. (Amended) The implant of claim 1, wherein said structured surface is porous and said biocompatible material coats interconnected pores beneath said structured surface.

19. (Amended) A composition for an implant, comprising:
a biocompatible material coated on a structured surface defined by a substrate;

A4 wherein said structured surface includes a plurality of undercuts, and said biocompatible material coats said plurality of undercuts in said structured surface; and

wherein said coating is formed by a thin film technique adapted to deposit said coating on line-of-sight hidden surfaces within said plurality of undercuts of said structured surface.

A5 25. (Amended) The composition of claim 19, wherein said thin film technique includes at least one deposition process selected from the group consisting of physical vapor deposition and chemical vapor deposition.

27. (Amended) The composition of claim 19, wherein said structured surface is porous and said biocompatible material coats interconnected pores beneath said structured surface.

37. (Amended) An implant comprising:
a substrate;
a structured surface formed on a portion of said substrate;
and
a biocompatible coating deposited on at least a fraction of said structured surface,
wherein said structured surface includes a plurality of undercuts, and said biocompatible coating coats said plurality of undercuts in said structured surface; and
wherein said coating is formed by a thin film technique adapted to deposit said coating on line-of-sight hidden surfaces within said plurality of undercuts of said structured surface;
wherein said portion of said substrate is to be fixed with tissue-in-growth and/or on-growth for stability.

43. (Amended) The implant of claim 37, wherein said thin film technique includes at least one deposition process selected

A8
Comb from the group consisting of physical vapor deposition and chemical vapor deposition.

Please add new claims 76-78 as follows:

A9
~~76. (New Claim) An implant, comprising:
a substrate;
a structured surface formed on at least a portion of said
substrate; and
a biocompatible coating deposited on at least a fraction of
said structured surface;
wherein said structured surface is defined by a material
that includes a plurality of particles that are sintered together
to form a continuous porous phase.~~

~~77. (New Claim) A composition for an implant,
comprising:
a biocompatible material coated on a structured surface
defined by a substrate;
wherein said structured surface is defined by a material
that includes a plurality of particles that are sintered together
to form a continuous porous phase.~~

78. (New Claim) An implant comprising:

a substrate;

a structured surface formed on a portion of said substrate;

and

a biocompatible coating deposited on at least a fraction of said structured surface,

wherein said portion of said substrate is to be fixed with tissue in-growth and/or on-growth for stability; and

wherein said structured surface is defined by a material that includes a plurality of particles that are sintered together to form a continuous porous phase.

Remarks

In the outstanding Official Action, the Examiner:

(1) noted that claims 55-75 are withdrawn from further consideration as being drawn to a nonelected Group II;

(2) rejected claims 1-3, 6, 8, 10, 13, 16-21, 24, 26-28, 31, 34-39, 42, 44-46, 49, and 52-54 under 35 USC 102(e) as being anticipated by Buechel et al.;

(3) rejected claims 2-5, 20-23, and 38-41 under 35 USC 103(a) as being unpatentable over Buechel et al. in view of Homsy;

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